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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,479	09/16/2005	Magdalene M. Moran	110313.138US2	6126
23483	7590	09/30/2009		
WILMERHALE/BOSTON			EXAMINER	
60 STATE STREET			MONTANARI, DAVID A	
BOSTON, MA 02109				
		ART UNIT	PAPER NUMBER	
		1632		
		NOTIFICATION DATE	DELIVERY MODE	
		09/30/2009	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com

teresa.carvalho@wilmerhale.com

sharon.mathews@wilmerhale.com

### Office Action Summary

**Application No.**

10/523,479

**Applicant(s)**

MORAN ET AL.

**Examiner**

David Montanari

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicants arguments and amendments filed on 5/29/2009 have been entered.
2. Claim 5 has been amended.
3. The rejection of claim 3 under 35 USC 112, first parag. written description is  
Withdrawn in view of Applicant's amendment to the claim.
4. Claim 5 is examined in the instant application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 5 remains rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. (U.S. Patent 6,183,751) for reasons of record in the office action mailed on 1/29/2009.

### ***Response to Arguments***

#### **Applicants Arguments**

Applicants argue in amendment filed on 5/29/2009 that hat Chang does not contain each and every element of amended claim 5, and thus does not anticipate claim 5. Applicants continue that claim 5 is drawn to a nucleic acid encoding a polypeptide having at least 95% amino acid sequence identity with a CatSper3 protein, or specific portions thereof, and that these terms are defined in the specification. Applicants continue that bases 19901-19908 of SEQ ID NO: 20 of Chang and bases 617-625 of SEQ ID NO: 1 in the instant application correspond to a portion of the codons for amino acids 206-209 of SEQ ID NO: 2. Applicants argue that these amino acids do not correspond to "a CatSper3 protein", "at least a transmembrane domain", "at least an extracellular loop", or "at least a pore region" of a CatSper3 protein as these terms are defined in the specification.

Applicants continue that they object to the assertion in the Office Action that "the claimed nucleic acid is broadly interpreted to encompass a fragment" (Office Action at page 3, second paragraph. The specification states that "[a] fragment of a CatSper3 protein comprises at least six amino acid residues" (¶ 36). Applicants argue that claim 5 recites different terms that are specifically defined in the specification, and that specifically do not constitute "fragments" as defined in the specification (or as apparently intended by the Office Action). For example, Applicants argue, the transmembrane domains of the CatSper3 proteins, as defined at ¶¶ 62-63, are polypeptides of 24-48 amino acid residues, the extracellular loops are polypeptides of 5-36 amino acid residues, and the pore regions are polypeptides of 8-9 amino acid residues. Applicants argue that these are not arbitrary fragments of the CatSper3 proteins, and cannot be encoded by "any span of nucleotides that would encompass two or more nucleotides" as suggested in the Office Action. These arguments are not found persuasive.

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**Response**

In view of Applicants arguments regarding definitions provided in the specification for the different regions of the CatSper3 protein listed in claim 5, these definitions do not overcome the rejection of record. Claim 5 is very clear, as it is drawn to an isolated nucleic acid encoding a polypeptide having at least 95% amino acid sequence identity with a polypeptide. That polypeptide can be any part of the CatSper3 protein as recited in step (a). Contrary to Applicants arguments, the isolated nucleic acid of claim 5 does indeed encompass fragments as the 102(b) rejection set forth. The claim reads on a nucleic acid with 95% identity with a polypeptide selected from a CatSper3 protein encoded by SEQ ID NO: 1 or 3, which reads on fragments, including fragments of 6 amino acid length. Claim 5 recites in line 2 "selected from the group consisting of" and for the purposes of this rejection "a CatSper3 protein" was selected to apply prior art over. Applicant is reminded that the rejection set forth that no function is ascribed to the protein encoded by the claimed nucleic acid sequence, and thus any two or more span of nucleotides would anticipate the claimed invention. Thus for these reasons and of record the rejection is maintained.

***Conclusion***

No claims are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Montanari whose telephone number is (571)272-3108. The examiner can normally be reached on M-Tr 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on 1-571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David A. Montanari  
AU 1632

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/Valarie Bertoglio/

Primary Examiner, Art Unit 1632